

## Special Issue

# Advanced CMOS Devices and Applications, 2nd Edition

### Message from the Guest Editors

The Special Issue aims to provide an overview of the recent progress in advanced CMOS and memory technologies from research scientists and engineers working in the fields of semiconductor devices, materials, and reliability and to discuss the opportunities and challenges in these fields, as well as any new findings, new phenomena, and state-of-the-art technologies related to advanced CMOS and memory devices. Papers related to device and material technologies for advanced CMOS and emerging non-volatile memories for neuromorphic computing applications are solicited, with topics including the following:

- Advanced CMOS device architectures for high performance, ultra-low-power consumption, and reliability improvement
- Emerging materials and advanced process technologies for high-mobility channels, gate stack formation, S/D contact, and junctions
- Device physics, novel characterization methods, TCAD simulation, and ab initio calculation for advanced CMOS and emerging non-volatile memories
- Conventional memories and emerging memories such as ReRAM, MRAM, PCRAM, and FeRAM
- Memory device physics, reliability, and modeling
- Synaptic devices for neuromorphic computing applications

### Guest Editors

Prof. Dr. Choonghyun Lee

College of Information Science and Electronic Engineering, Zhejiang University, Hangzhou 310027, China

Prof. Dr. Yi Zhao

School of Integrated Circuits, East China Normal University, Shanghai 200050, China

### Deadline for manuscript submissions

closed (15 May 2025)



## Electronics

an Open Access Journal  
by MDPI

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/si/181958](https://mdpi.com/si/181958)

*Electronics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

[mdpi.com/journal/  
electronics](https://mdpi.com/journal/electronics)





# Electronics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/journal/  
electronics](https://mdpi.com/journal/electronics)



## About the Journal

### Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

---

### Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di  
Torino, 10129 Torino, Italy

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus /  
SciFinder, Inspec, Ei Compendex and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) /  
CiteScore - Q1 (Electrical and Electronic Engineering)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).